**Digital Backpacks**

**Definition**

A digital backpack consists of both software and hardware that supports student centered learning.

**Research**

Oliver, B & Goerke, V. (2007). Australian undergraduates' use and ownership of emerging technologies: Implications and opportunities for creating engaging learning experiences for the Net Generation. *Australasian Journal of Educational Technology* *23*(2), 171-186.

See attached

**Proposal**

In order to collect data that informs the Education Department regarding the effectiveness of a digital backpack for teacher-candidates, I propose the launch of a pilot study. The study would involve the development of one digital backpack and one group (three students) of teacher candidates currently in AYA 401c.

**Backpack**

Software tools compose one element of the Digital Backpack. They are referenced here from <http://www.guilpl.org/teen/digitalbackpack.php> The majority are Web 2.0 which “refers to sites whose features or tools can be used without downloading any software onto the computer you are using. These are perfect for using the computers and laptops in the library or at school. Some sites may require that you register to use their service and/or sign in to access files you’ve saved online”.

[Google Docs and Spreadsheets](http://docs.google.com/) – [Zoho Office Suite](http://www.zoho.com/) -- create presentations, documents, spreadsheets, etc. Very handy and free!

**Photo & video editing**  
[Picnik](http://www.picnik.com/) -- Upload photos from your computer and edit them online. Replaces a number of features found in Photoshop Elements.  
[Jumpcut](http://www.jumpcut.com/) -- Upload and edit that soon to be YouTube sensation you’re working on!

**Audio production, recording, mixing, etc.**  
[PBWorks](http://www.pbworks.com/) -- PBworks lets you quickly set up your own free, hosted, password-protected workspace to edit and share information.

**Mathematics**   
[Calcoolate](http://www.calcoolate.com/) -- Scientific calculator. Calcoolate handles many conversions (feet to miles, metric to non-metric, etc.) as well.  
[E-Tutor Graphing Calculator](http://www.e-tutor.com/et3/graphing/) -- Great TI replacement tool.

**Citing your work: Bibliography machines**  
[Citationmachine](http://citationmachine.net/) -- Enter the book info into the boxes and click a button. The result is a formatted citation you can copy/paste into your paper.  
[OttoBib](http://ottobib.com/) -- Even easier than Citationmachine – enter a book’s ISBN number (it should be on the back of the book and will say ISBN, ISBN-10, or ISBN-13 and then have a bunch of numbers after it). The full citation pops up. You can enter as many ISBNs as you want and the whole list of citations will appear!

**Useful, random, research and other tools**   
[Zipskinny](http://zipskinny.com/) -- Instant demographics information (meaning, population, race, economics, ages of people, etc.) by zip code.  
[Graph Paper](http://incompetech.com/graphpaper/) -- print off sheets of graph paper when you need to  
[Free PDF Maker / Converter](http://www.freepdfconvert.com/) -- If you ever need to, here’s a place to make your own PDFs.

**Just for fun**

[Graffiti Creator](http://www.graffiticreator.net/) -- generate custom graffiti tags with this extremely versatile editing tool.  
[The Newspaper Clipping Generator](http://www.fodey.com/generators/newspaper/snippet.asp) –generate your authentic-looking piece of faux news!

**More Web 2.0 Goodness**   
[Webware](http://www.webware.com/) -- “Webware is the site where computer users can learn about new and useful web applications” – says webware.com. Basically, if you find this Digital Backpack useful and like this kind of thing, spend some time looking around this site.

http://www.guilpl.org/teen/digitalbackpack.php

**Hardware**

The Digital Backpack will require a physical storage. These carry-cases range from about $100-$200. A laptop ($1000), tablet ($600), digital camera ($200), microphone ($15), GPS device ($200), and possibly a smart phone could begin to complete the hardware element of the digital backpack. Cost of hardware in the range of $2000 - $2500. Some of the hardware already exists in the education department, therefore lowering this cost of the pilot.

**Development**

In order to support the learning goals of AYA 401c, the pilot project would require students to explore the big picture of the UGRR in Painesville and design a series of lessons in a unit that aligns to the NCSS standards. This unit would be anchored with the Digital Backpack. Development of the assignment and assessment responsibility falls to the instructor of AYA 401c. Evaluation of the use of Digital Backpacks would be completed by the collective members of the Education Department. A presentation by the students to the Ed Dept would provide a qualitative description of the experience and aid in assessing the effectiveness of the use of Digital Backpacks.